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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/988,579	11/20/2001	Simon Gerard Hardin	P67299US0	8749

7590 06/20/2003

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EXAMINER
OLTMANS, ANDREW L

ART UNIT	PAPER NUMBER
1742	10

DATE MAILED: 06/20/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/988,579	HARDIN ET AL.	
	Examiner	Art Unit	
	Andrew L Oltmans	1742	

-- The MAILING DATE f this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *14 April 2003* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-43* is/are pending in the application.

4a) Of the above claim(s) *22-32 and 41-43* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-21 and 33-40* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) *6,9* .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other:

DETAILED ACTION

Election/Restrictions

1. Applicant's election without traverse of Group I, claims 1-21 and 33-40, in Paper No. 8 is acknowledged.

Claim Objections

2. Claims 1, 3, 6, 9, 11, 33, 36 and 39 are objected to because of the following informalities:

a. In claims 1 (line 3) and claims 33 (line 4), the claims recited a rare earth element "as herein defined". The use of the phrase is redundant and creates confusion with respect to the limitation "rare earth element", since the term is already interpreted in light of the specification. The examiner suggests that the phrase be deleted.

b. In claims 1, 3, 6, 9, 11, 33, 36 and 39, the phrases beginning with the phrase "selected from" is improper Markush language, wherein the claims do not recite the proper alternative language, such as the use of the term "or" or the Markush language "selected from the group consisting of" (see MPEP 2173.05(h)). It is noted that proper alternative language is used on lines 3-4 of claim 1.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

UK Patent Application GB 2 097 024 A

4. Claims 1-4, 6-15, 17-19, 21 and 33-40 are rejected under 35 U.S.C. 102(b) as being anticipated by UK Patent Application GB 2 097 024 A (UK '024).

UK '024 teaches an aqueous acidic solution and concentration containing the claimed ingredients including the rare earth element (including Ce), the accelerator additive (including iron, nickel, cobalt, molybdenum, manganese and aluminum), the peroxidic species (including hydrogen peroxide) and the acid (including nitric acid, sulfuric acid and hydrochloric acid), wherein there is no more than 20 mg/L of fluoride and phosphate and the solution is substantially free of chromate (i.e. free of *hexavalent* chromium), as instantly claimed in instant claims 1, 3, 6, 9, 11, 17, 21 and 33-40(see e.g. page 17):

> a period of about 30 seconds and at a temperature ...
> The cerium ions were introduced as a $CeCl_3$ solution containing about 300 g/l cerium ions; the manganese ions were introduced as $MnSO_4 \cdot H_2O$; the ferric ions were introduced as $Fe_2(SO_4)_3$ dissolved in a dilute sulphuric acid solution, the molybdenum ions were introduced as sodium molybdate dry salt; the lanthanum ions were introduced as an $LaCl_3$ solution containing about 85 g/l lanthanum ions; and the cobalt ions were introduced as cobalt sulphate. The test solutions are designated as Examples 3.5A to 3.5G and the concentration of metal ion additions are summarised in Table 2.

The composition includes only a single accelerator species, wherein the concentration, the concentration ratio and the pH is encompassed by the instantly claimed compositions of the ingredients, as recited in claims 1-2, 4, 7-8, 10, 12-15, 18-19, 33 and 37-39 (page 18):

Table 2
Metal ion concentration g/l

Example	3.5A	3.5B	3.5C	3.5D	3.5E	3.5F	3.5G
Metal ion							
Cr^{+3}	1	1	1	1	1	1	1
Ce^{+3}	2	2	2	2	2	2	2
Mn^{+2}	—	0.9	—	—	—	—	—
Fe^{+3}	—	—	0.22	—	—	0.08	0.08
Mo^{+6}	—	—	—	1.0	—	—	—
La^{+3}	—	—	—	—	1.0	—	—
Co^{+2}	—	—	—	—	—	—	0.13

The claims do not distinguish over the teachings of UK '024.

With respect to the limitation "for forming a conversion coating on the surface of a metallic material" (recited in claim 1), specifically "aluminum or aluminum alloy" (recited in claim 19), the limitation is merely an intended use and has not been afforded patentable weight. A recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. In a claim drawn to a process of making, the intended use must result in a manipulative difference as compared to the prior art. See *In re Casey*, 152 USPQ 235 (CCPA 1967) and *In re Otto*, 136 USPQ 458, 459 (CCPA 1963).

International Application WO 96/15292 A1

5. Claims 1-21 re rejected under 35 U.S.C. 102(b) as being anticipated by International Application WO 96/15292 A1 (WO '292).

WO '292 teaches teaches an aqueous acidic solution and concentration containing the claimed ingredients including the rare earth element (including La and Ce), the accelerator additive (including transition elements other than chromium, specifically including Cu), the

peroxidic species (including metal peroxo complexes and/or hydrogen peroxide) and the acid (including hydrochloric acid), wherein there is no more than 20 mg/L of fluoride and phosphate and the solution is substantially free of chromate (i.e. free of *hexavalent* chromium), as instantly claimed in instant claims 1, 3, 6, 9, 11, 16-17 and 20-21 (page 26):

> **1. An aqueous, acidic solution for forming a rare earth element containing coating on the surface of a metal, said solution being chromium free and including effective quantities of:**
>
> **(a) one or more rare earth element containing species including at least one rare earth element capable of having more than one higher valence state, as herein defined; and**
>
> **(b) one or more additives selected from the groups including:**
>
> **(i) aqueous metal complexes including at least one peroxo ligand; and**
>
> **(ii) metal salts or aqueous metal complexes of a conjugate base of an acid in which the metals are selected from Transition Elements, other than chromium, and Group IVA elements of the Periodic Table as herein defined.**

(see also page 5, line 31 to page 6, line 7, page 6, lines 17-29, page 8, line 22 to page 9, line 28 and page 11, lines 11-13)

The composition includes only a single accelerator species, wherein the concentration, the concentration ratio and the pH is encompassed by the instantly claimed compositions of the ingredients, as recited in claims 1-2, 4-5, 7-8, 10, 12-15 and 18-19 (page 6, lines 11-16 and 20-25, page 7, lines 9-14, page 9, lines 11-15, page 10, line 3-10). With respect to the recitation of (b)(i) and (b)(ii), the combination of the two provide particularly desirable results (page 10):

> **The addition of a peroxo complex or a m tal c mplex or salt individually assists in improving coating time and/or adherence of the coating. However, a further improvement in either or both of these parameters can occur if the peroxo complex and metal complex or salt are added to the coating solution in combination. There is accordingly a synergistic effect in adding both types of additives to the coating solution together. There can also be an additional improvement when more than one additive from either or both groups is added to the coating solution.**

(see also page 17, lines 27-30 and page 18, lines 1-18)

The claims do not distinguish over the teachings of WO '292.

With respect to the limitation "for forming a conversion coating on the surface of a metallic material" (recited in claim 1), specifically "aluminum or aluminum alloy" (recited in claim 19), the limitation is merely an intended use and has not been afforded patentable weight. A recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. In a claim drawn to a process of making, the intended use must result in a manipulative difference as compared to the prior art. See *In re Casey*, 152 USPQ 235 (CCPA 1967) and *In re Otto*, 136 USPQ 458, 459 (CCPA 1963).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are

such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

International Application WO 96/15292 A1 in view of UK Patent Application GB 2 097 024 A

7. Claims 33-40 are rejected under 35 U.S.C. 103(a) as being unpatentable over International Application WO 96/15292 A1 (WO '292) in view of UK Patent Application GB 2 097 024 A (GB '024).

WO '292 teaches and is applied as set forth above in paragraph 5.

WO '292 fails to meet all the limitations of the instant claims in that WO '292 does not explicitly teach the concentrate for make-up of the rare earth conversion coating composition.

GB '024 teaches and is applied as set forth above in paragraph 4. GB'024 teaches that the concentrates can be used as a make-up for the rare-earth conversion coating baths and are advantageous for operating the treatment bath (page 3, lines 1-25).

One of ordinary skill in the art at the time that the invention was made would have found the instant invention to be obvious because one of ordinary skill in the art would have been motivated to provide a make-up solution for the composition of WO '292 in order to provide a manner in which the bath concentrations could easily be managed, as taught in GB '024. Further, one of ordinary skill in the art would find the use of concentrates advantageous because concentrate solutions require less storage requirements and are easier to transport.

Double Patenting

8. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686

F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970);and, *In re Thorington,* 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

9. Claims 1-21 and 33-40 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-21 and 34-40, of copending Application No. 09/988,578. Although the conflicting claims are not identical, they are not patentably distinct from each other because the composition recited by both applications overlap, including concentrations, ratios, selection of particular elements and pH. For example, both applications recite at least one rare earth element, an accelerator additive comprising group VA or VIA of the periodic table and an oxidant (e.g. peroxo compound) (as recited in claim 1 of both applications).

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Conclusion

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew L. Oltmans whose telephone number is 703-308-2594. The examiner can normally be reached 7:00-3:30 Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King can be reached on 703-308-1146. The fax phone numbers for the

organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

Andrew L. Oltmans
Examiner
Art Unit 1742

June 18, 2003